

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
19 December 2002 (19.12.2002)

PCT

(10) International Publication Number
WO 02/101422 A3

(51) International Patent Classification⁷: **G02B 6/02**

(21) International Application Number: PCT/KR02/01109

(22) International Filing Date: 12 June 2002 (12.06.2002)

(25) Filing Language: Korean

(26) Publication Language: English

(30) Priority Data:
2001/33141 13 June 2001 (13.06.2001) KR

(71) Applicant (for all designated States except US): **SAM-
SUNG ELECTRONICS CO., LTD.** [KR/KR]; 416, Mae-
tan-3 Dong, Paldal-Gu, Suwon 442-742 (KR).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **PARK, Joon, Yong**
[KR/KR]; 293-1 Imun-1 Dong, Dongdaemun-Gu, Seoul
130-081 (KR).

(74) Agent: **KIM, Hak, Je**; Kwangwhamoon P.O.Box 1828,
Seoul 110-618 (KR).

(81) Designated States (national): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,

CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG,
SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ,
VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR,
GB, GR, IE, IT, LU, MC, NL, PT, SE, TR). OAPI patent
(BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,
NE, SN, TD, TG).

Published:

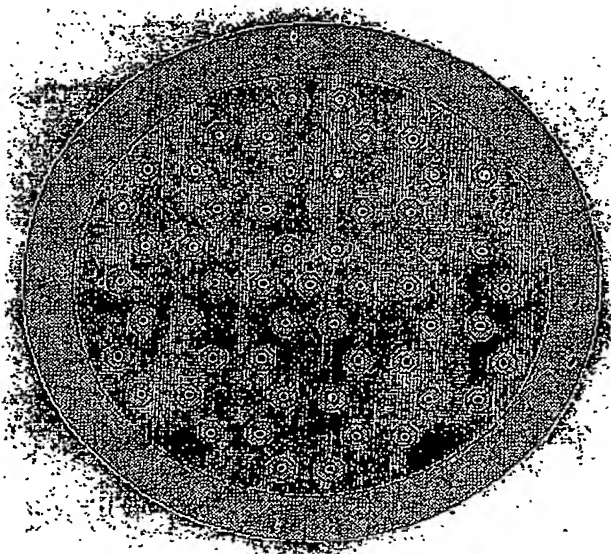
- with international search report
- before the expiration of the time limit for amending the
claims and to be republished in the event of receipt of
amendments

(88) Date of publication of the international search report:
13 March 2003

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: **METHOD FOR FABRICATING OPTICAL FIBER PREFORM USING EXTRUSION DIE**

(57) Abstract: Disclosed is a method of fabricating
a photonic crystal fiber preform using an extrusion
die, comprising the step of extruding a first optical
material into a continuous phase, and a second op-
tical material into a plurality of dispersed phases to
axially orient the dispersed phases.



WO 02/101422 A3

INTERNATIONAL SEARCH REPORT

International application No.
PCT/KR02/01109

A. CLASSIFICATION OF SUBJECT MATTER

IPC7 G02B 6/02

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7 G02B 6/02

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean Patents and applications for inventions since 1975

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

IEL

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	T.A.Birks et.al., 'Dispersion Compensation Using Single-Material Fibers', In:IEEE Photonics Technology Letters, Vol.11, No.6, JUNE 1999, pages 674-676 See whole document	1
A	S.E.Barkou et.al., 'Dispersion properties of photonic bandgap guiding fibers', In:Optical Fiber Communication Conference, 1999, and the International Conference on Integrated Optics and Optical Fiber Communication.OFC/IOOC '99. Technical Digest, Vol 4, Pages 117-119 See whole document	1

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

31 DECEMBER 2002 (31.12.2002)

Date of mailing of the international search report

31 DECEMBER 2002 (31.12.2002)

Name and mailing address of the ISA/KR



Korean Intellectual Property Office
920 Dunsan-dong, Seo-gu, Daejeon 302-701,
Republic of Korea

Facsimile No. 82-42-472-7140

Authorized officer

JEONG, So Yeon

Telephone No. 82-42-481-5656



Form PCT/ISA/210 (second sheet) (July 1998)